Please type a plus

PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paper of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. TRANSMITTAL **Application Number** 10/712,351 **FORM Filing Date** November 13, 2003 (to be used for all correspondence after initial filing) **First Named Inventor** Xueping Xu Group Art Unit 1775 **Examiner Name** TBA Total Number of Pages in This Submission Attorney Docket Number **ATMI-685** ENCLOSURES (check all that apply) After Allowance Communication **Assignment Papers** Fee Transmittal Form (for an Application) to Group Appeal Communication to Board of Fee Attached Drawing(s) Appeals and Interferences Appeal Communication to Group Amendment / Reply Licensing-related Papers (Appeal Notice, Brief, Reply Brief) Petition After Final **Proprietary Information** Petition to Convert to a Status Letter Affidavits/declaration(s) **Provisional Application** Power of Attorney, Revocation Other Enclosure(s) (please Extension of Time Request identify below): Change of Correspondence Address **Express Abandonment Request** Terminal Disclaimer Information Disclosure Statement Request for Refund Certified Copy of Priority CD, Number of CD(s) Document(s) Response to Missing Parts/ Remarks Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm William F. Ryann, Reg. No. 44,313 Individual name Signature Date

CERTIFICATE OF MAILING										
I hereby certify that this correspondence is being deposited pursuant to 37 C.F.R. 1.8 in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date:										
Type or printed name	Lee Ann DiLello									
Signature	Date 3/404									

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. They will vary depending upon the needs of the individual case. Any comments on the amount of time your are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



ATMI-685

Customer ID No.: 25559

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Xueping Xu, et al.

Group Art Unit: 1775

U.S. Application No.: 10/712,351

Examiner: TBA

Filed: November 13, 2003

Title: Large Area, Uniformly Low Dislocation Density GaN Substrate and Process for Making

the Same

CERTIFICATE OF MAILING

I hereby certify that this paper or fee is being deposited pursuant to 37 CFR 1.8

on the date indicated below and is addressed to the Commissioner of Patents, P.O. Box 1450, Alexandria, VA

11 11 11 11

March 4, 2004

Date

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO-1449. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

■ 1. This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required in accordance with 37 CFR § 1.56 and § 1.97(b).

2.	2. This Information Disclosure Statement is being filed more than three months af U.S. filing date AND after the mailing date of the first Office Action on the meri before the mailing date of a Final Rejection or Notice of Allowance.					
	□ a.	I hereby certify that each item of information contained in this Information Disclosure Statement was the first citation of such item by a foreign patent office in a counterpart foreign application, which occurred no more than three months prior to filing the Information Disclosure Statement. 37 C.F.R. §1.97(e)(1).				
	□ b.	I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. §1.97(e)(2).				
	□ c.	Attached is our check no in the amount of \$180 in payment of the fee under 37 C.F.R. §1.17(p). Please credit or debit Deposit Account No. 50-0860 as needed to ensure consideration of the disclosed information. Two duplicate copies of this paper are attached.				
3.	U.S. fi but be Disclo \$130.0 Depos	Information Disclosure Statement is being filed more than three months after the filing date and after the mailing date of a Final Rejection or Notice of Allowance, fore payment of the Issue Fee. Applicant(s) hereby petition(s) that the Information sure Statement be considered. Attached is our check no in the amount of 00 in payment of the petition fee under 37 C.F.R. §1.17(i)(1). Please credit or debit it Account No as needed to ensure consideration of the disclosed information. uplicate copies of this paper are attached.				
	□ a.	I hereby certify that each item of information contained in this Information Disclosure Statement was the first citation of such item by a foreign patent office in a counterpart foreign application which occurred no more than three months prior to filing the Information Disclosure Statement. 37 C.F.R. §1.97(e)(1).				
	□ b.	I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. §1.97(e)(2).				
4.	(other)	:				

Applicant does not believe that any additional fee is due in connection with the foregoing. However, any deficiencies may be charged to the deposit account 50-0860.

Respectfully submitted,

William F. Ryann

Registration No. 44,313 Attorney for Applicant

Date: March 4, 2004

Advanced Technology Materials, Inc.

7 Commerce Drive Danbury, CT 06810 Attorney Ref: ATMI-685

FORM PTO-1449		US Dept. of Commerce Patent and Trademark Office		ATTORNEY DOCKET NO. ATMI-685		SERIAL NO. 10/712,351				
	ratent and Trademark Office									
				APPLICANT						
INFORMA	TION D	ISCLOSURE STA	TEMENT	Variation Variation						
se several sheets if necessary)				Xueping Xu, et al. FILING DATE GROUP						
AR 0 8 2004	y)	nar sheets it necess	.ary)	FILING DATE		GROOT				
<u> </u>				November 13, 2003		1775				
EXAMINATE	y	PATENT	U.S.	PATENT DOCUMENTS	1		FILING	DATE		
RADEM AL	_	NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	IF APPRO			
	AA	5,637,531	6/10/1997	Porowski, et al.						
	AB	5,679,152	10/21/1997	Tischler, et al.						
	AC	6,559,075	5/6/2003	Kelly, et al.						
	AD	6,413,627	7/2/2002	Motoki, et al.						
	AE	6,468,347	10/22/2002	Motoki, et al.						
·	AF	2003/0080345	5/1/2003	Motoki, et al.						
	AG	2003/0145783	8/7/2003	Motoki, et al.						
	AH	6,440,823	8/27/2002	Vaudo, et al.			··-·	· # =		
·· ·· ···	AI	6,488,767	12/3/2002	Xu, et al.						
				GN PATENT DOCUMEN	TS					
		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLAS S	TRANSL YES	ATION NO		
							X			
							(abstract only)			
		OTHER DOCUM	MENTS (Includ	ing Author, Title, Journa	l-Date, Page N	umber, Etc.)				
	AJ	S. Porowski, et a	l., J.Cryst. Grov	vth, Vol. 78, 174, (1997)						
	AK	M. Bockowski, J	. Cryst. Growth,	, Vol. 246, 194 (2002)						
	AL	M.K. Kelly, et al., Jpn. J. Appl. Phys Vol. 38, pp. L217-L219, (1999)								
	AM	Xu, et al., J. Electronic Materials, Vol. 31, 402, (2002)								
	AN	J. Crystal Growth	h, Vol. 246, 223	(2002) and Physica Status	Solidi (c), (20	003)				
				· · · · · · · · · · · · · · · · · · ·						
	•			Continue on Page						
EXAMINER					DATE C	ONSIDERED)			
EXAMINE	R: Initia	al if citation consid	lered, whether o	r not citation is in conforma	ance with MPE	P § 609; Drav	line throug	gh		
citation if n	ot in coi	ntormance and not	considered. Inc	lude copy of this form with	next communi	cation to the a	ippiicant.			